

### **Amendments to the Claims**

The listing of claims replaces all prior versions, and listings, of claims in the application.

#### **Listing of claims**

Claim 1: (currently amended) A handheld portable 2-way secure purchasing aid logistics appliance (PAL), comprising:

an optical reader subsystem and optical scan assembly capable of scanning high density bar codes into said PAL as scanned information, said optical reader subsystem and optical scan assembly capable of extracting from said scanned information numerical codes related to a web page representation and providing said scanned information as input data;

encrypted random access memory (RAM) capable of storing said input data including encryption keys, financial data, and PAL owner name in said PAL, said encrypted RAM having secure and disabled modes;

voice analog circuitry having a speaker and a microphone, and capable of receiving voice samples as said input data;

a central processor coupled to said ~~[[an]]~~ optical reader subsystem and optical scan assembly, said encrypted RAM, and said voice analog circuitry;

a secure trusted monitor program executable by said central processor, ~~said secure trusted monitor program~~ and capable of storing ~~[[specific]]~~ said voice samples for biometric voice recognition ~~and session parameters from a previous use~~;

a decoder executable by said central processor and capable of decoding the numerical codes according to merchant-specific rules and providing the decoded numerical codes to a parser that creates web page software to build said web page representation;

a browser capable of receiving said web page software and creating a display from said web page software;

a magnetic stripe reader coupled to said central processor and capable of receiving said financial data as said input data;

a smart card reader coupled to said central processor and capable of receiving said encryption keys as said input data;

a remote ear piece coupled to said central processor and capable of providing output data;

a front panel including keys, switches and indicators coupled to said central processor and capable of 2-way communication and receiving said input data;

a micro video display controller having a micro video display coupled to said central processor and capable of providing said 2-way communications and receiving said input data;

a high-resolution touch screen display having a touch screen interface controller coupled to said central processor and capable of receiving said input data;

a weight-measuring device coupled to said central processor and capable of receiving said input data; and

a radio link controller and radio subsystem capable of high-speed secure short-range communication coupled to said central processor and capable of said 2-way communication and receiving said input data; and

a primary battery set and a backup battery set, said primary battery set supplying power to said PAL until said primary battery set is depleted, said PAL automatically switching to said backup battery set when said primary batter set is depleted;

wherein said central processor ~~[[receives]]~~ processes said input data, creates shopping lists from said numerical codes, and provides said shopping lists and said web page representation on said touch screen display for manipulation by the user through said front panel and said micro video display;

wherein said radio link controller and radio subsystem provide said shopping lists to a merchant computer.

Claim 2: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 1 further comprising:

a plurality of antennas capable of enabling non-interfering and secure communications between the PAL purchasing aid logistics appliance and a ~~merchant's~~ said merchant computer for a plurality of simultaneous signals, ~~the merchant's~~ said merchant computer capable of enabling

each of said plurality of antennas independently based on the location of [[the]] said PAL purchasing aid logistics appliance with respect to said plurality of antennas,

wherein ~~said means for inputting information is a radio receiver~~ link controller and radio subsystem are capable of receiving signals based on the location of said radio receiver link controller with respect to said plurality of antennas, from a radio transmitter coupled to [[the]] said merchant computer through said plurality of antennas, wherein [[the]] said merchant computer transmits product information in response to one of said plurality of signals a signal by said PAL purchasing aid logistics appliance for said product information.

Claim 3: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 1 further comprising ~~wherein said means for inputting information is an internet port, said internet port is connectable to a personal computer linked to a merchant web site, whereby the~~ said merchant web site downloads product information to said internet port in response to one of said plurality of signals a signal by [[the]] said personal computer for said product information.

Claim 4: (previously presented) The portable 2-way secure purchasing aid logistics appliance according to claim 1 wherein said optical reader subsystem and optical scan assembly scans print media bar codes having product information and generates bar code signals to said central processor for further processing.

Claim 5: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 4 wherein said central processor compares said shopping list to said bar code signals to determine whether product is a new product to add to said shopping list or an existing product, whereby said central processor tracks [[the]] a total cost of said products scanned, the remaining said products remaining to be scanned, and [[the]] available funds remaining in [[the]] a budget.

Claim 6: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 4 wherein said central processor includes executable software to convert said bar code signals into ~~[[a]]~~ said web page representation to be displayed on said display.

Claim 7: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 6 wherein said ~~executable software includes:~~ a decoder ~~[[having]]~~ comprises at least one decode table, said decoder capable of interpreting, according to ~~[[the]]~~ said at least one decode table, ~~[[a]]~~ said bar code ~~capable of representing a display in one of a plurality of computer languages;~~ ~~said decoder capable of providing parsing information from the interpreted bar code;~~

~~a parser capable of creating display executable code to build the display from said parsing information; and~~

~~a display browser capable of creating a web page from said display executable code.~~

Claim 8: (cancelled)

Claim 9: (cancelled)

Claim 10: (cancelled)

Claim 11: (cancelled)

Claim 12: (cancelled)

Claim 13: (cancelled)

Claim 14: (cancelled)

Claim 15: (cancelled)

Claim 16: (previously presented) The portable 2-way secure purchasing aid logistics appliance according to claim 1 wherein said radio link controller and radio subsystem controls signal strength to communicate with a merchant sales register to minimize the possibility of transmission interception during a purchase transaction.

Claim 17: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 1 wherein said central processor further includes executable software to compare smart card information and user personal identification number to data stored in a smart card and said central processor to prevent unauthorized use of said portable 2-way secure PAL purchasing aid logistics appliance, wherein said data stored on the smart card is read from ~~[[a]]~~ said smart card reader integrated with said PAL purchasing aid logistics appliance.

Claim 18: (currently amended) A method for using a purchasing aid logistics appliance, comprising the steps of:

- downloading product data from a web site;
- creating a shopping list from the product data;
- monitoring beacon channels from a barker beacon at a threshold of a merchant facility;
- receiving into the purchasing aid logistics appliance a channel indication of a first wireless channel from the beacon channels;
- determining a location of the purchasing aid logistics appliance when the purchasing aid logistics appliance is in the threshold doorway of ~~[[a]]~~ the merchant facility;
- causing the purchasing aid logistics appliance to wirelessly upload the shopping list to a merchant computer from the purchasing aid logistics appliance through the first wireless channel when the purchasing aid logistics appliance is in the threshold ~~at the location~~, the first wireless channel directly connecting the merchant computer with the purchasing aid logistics appliance;
- receiving the product data, a full duplex channel, and personal data into the purchasing aid logistics appliance from the merchant computer through the first wireless channel while traversing ~~a doorway~~ the threshold into the merchant facility;
- receiving a customer-specific merchant in-store identification and merchant-specific database identification into the purchasing aid logistics appliance from the merchant computer, the merchant-specific database identification being used in the purchasing aid logistics appliance to retrieve a merchant database pointer to be provided to the merchant computer to set customer treatment rules and retrieve merchant-specific product prices specific to the merchant facility;

continually exchanging performance and error information between the purchasing aid logistics appliance and the merchant computer to enable the purchasing aid logistics appliance to increase transmit power if necessary;

releasing the first wireless channel when the purchasing aid logistics appliance is out of range of the barker beacon;

communicating with the merchant computer by means of the full duplex channel;

responding to a periodic communication from the merchant computer with the customer-specific merchant in-store identification;

processing voice input to summon customer assistance;

scanning a product bar code when a product is removed from the shelf and placed in a shopping cart for purchase;

creating a shopping cart file when the product is scanned; [[and]]

supplying the product bar code and the merchant database pointer to the merchant computer;

receiving the merchant-specific product prices from the merchant computer;

tracking an amount of time is spent at a particular shopping location within the merchant facility;

informing a user when a cost computed from the merchant-specific product prices as applied to the product selected by the user reaches a budget limit;

wirelessly transmitting the shopping cart file to the merchant computer to checkout through a special-purpose short-range link; and

automatically uploading rebate information to the merchant computer.

Claim 19: (cancelled)

Claim 20: (cancelled)

Claim 21: (cancelled)

Claim 22: (cancelled)

Claim 23: (cancelled)

Claim 24: (currently amended) The method as defined in claim 18 further comprising the steps of:

recording financial transaction logs in parallel with banks and other financial organizations.

~~downloading at least one price associated with the product data;~~  
~~verifying the validity of the at least one price; and~~  
~~synchronizing appliance financial transaction logs with financial institution financial transaction logs~~

Claim 25: (cancelled)

Claim 26: (cancelled)

Claim 27: (cancelled)

Claim 28: (cancelled)

Claim 29: (cancelled)

Claim 30: (cancelled)

Claim 31: (currently amended) The portable 2-way secure purchasing aid logistics appliance according to claim 1 wherein said encrypted RAM ~~[[secure memory]]~~ comprises:

an address decoder;

means for misaligning ~~[[the]]~~ an address of a memory location by a random number incorporated into said address decoder to encrypt the address; and

means for accessing said memory location by said address decoder by using said random number when a secure address range is accessed when said encrypted RAM is in said secure mode.

Claim 32: (cancelled)

Claim 33: (new) A handheld device comprising:

encrypted random access memory (RAM) having a disabled mode;

an address decoder;

means for misaligning an address of a memory location in said encrypted RAM by a random number incorporated into said address decoder to encrypt the address to prepare said handheld device for said disabled mode;

an unlocking process capable of performing a multi-step process to access said encrypted RAM in said disabled mode including the steps of:

inserting a smart card into a smart card reader of said handheld device;

accessing a personal identification number on said smart card;

receiving a user entry including a candidate personal identification number;

verifying said personal identification number with said candidate personal identification number;

comparing a secure data hash on said handheld device with a hash stored on said smart card;

unlocking said encrypted RAM if said personal identification number and said secure data hash verify; and

accessing said memory location by said address decoder by using said random number when a secure address range is accessed.

Claim 34: (new) The handheld device of claim 33 further comprising:

a plurality of antennas for sending and receiving simultaneous signals;

means for receiving information on a wireless channel;

means for releasing said wireless channel;

means for exchanging information on a full duplex wireless channel after releasing said wireless channel; and

means for transmitting data using a special purpose short-range link to provide secure transmission of said financial data.

Claim 35: (new) The handheld device of claim 34 further comprising:

means for controlling transmitting power in said full duplex wireless channel.



Claim 36: (new) The handheld device of claim 33 further comprising:

means for providing individually-tailored information to a user of said handheld device  
by use of customer treatment rules maintained by a merchant.

Claim 37: (new) The handheld device of claim 33 further comprising:

means for receiving voice input into said handheld device;  
means for preparing said voice input for summoning customer assistance.

Claim 38: (new) The handheld device of claim 33 further comprising:

means for computing an amount of time spent in one location in a merchant facility.

Claim 39: (new) The handheld device of claim 33 further comprising:

automatically providing rebate information to a merchant facility.

Claim 40: (new) The handheld device of claim 33 further comprising:

recording financial transaction logs in parallel with financial organizations.